

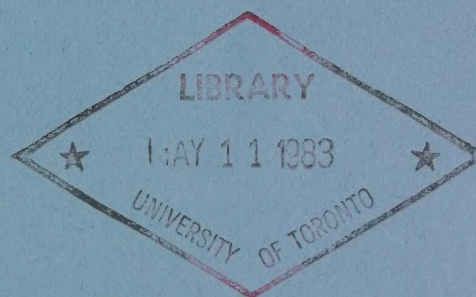
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# NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of the Application under  
Part IV of the National Energy Board Act  
(Toll Application)

of



**Trans Mountain Pipe Line Company Ltd.**

**March 1983**





## Raciel and Appointments

IN THE MATTER of the National Energy Board Act and the Regulations thereunder.

IN THE MATTER of an application by Trans Mountain Pipe Line Company Ltd. for certain orders relating to the application pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1700-7-01.

### NATIONAL ENERGY BOARD

Held at Vancouver, British Columbia on 14, 15, 16 and 17 January 1983.


### REASONS FOR DECISION

#### In the Matter of an Application Under Part IV of the National Energy Board Act (Toll Application)

#### TRANS MOUNTAIN PIPE LINE COMPANY LTD.

March 1983

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(i)

## Recital and Appearances

IN THE MATTER of the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Trans Mountain Pipe Line Company Ltd. for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-T4-5.

Heard at Vancouver, British Columbia on 24, 25, 26 and 27 January 1983.

### BEFORE :

L.M. Thur	)	Presiding Member
A.D. Hunt	)	Member
J.K. Jenkins	)	Member

### APPEARANCES :

C.B. Johnson	)	Trans Mountain Pipe Line
G.A. Irving	)	Company Ltd.
M.W.P. Boyle	)	
R.S. O'Brien, Q.C.	(	Air Canada
	(	Canadian Pacific Airlines Limited
	(	Pacific Western Airlines Ltd.
E.B. McDougall	)	Trans-Northern Pipelines Inc.
E.R.A. Edwards	)	Attorney General of British Columbia
J. Anderson	)	Gulf Canada Products Company*
S.K. Fraser	)	National Energy Board

\* at the invitation of the Board



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## Abbreviations and Definitions

"Act"	- National Energy Board Act
"the airlines"	- Air Canada, Canadian Pacific Airlines Limited, and Pacific Western Airlines Ltd.
"the Applicant", "the Company", "Trans Mountain"	- Trans Mountain Pipe Line Company Ltd.
"B.C."	- British Columbia
"Board", "NEB"	- National Energy Board
"December 1980 Decision"	- National Energy Board Reasons for Decision in the Matter of the Application under Part IV of the National Energy Board Act of Trans Mountain Pipe Line Company Ltd., December 1980
"1978 Decision"	- National Energy Board Reasons for Decision in the matter of an Application under Part IV of the National Energy Board Act of Trans Mountain Pipeline Company Ltd., January 1978
"Gulf"	- Gulf Canada Products Company
"IDC"	- interest during construction
"incl."	- inclusive
"interim period"	- 3 December 1982 to 31 March 1983
"ING"	- Inland Natural Gas Co. Ltd.
"IRR"	- investors' required return
"LPG"	- liquefied petroleum gas
"test year"	- 1 January 1983 to 31 December 1983
"m <sup>3</sup> "	- cubic metre
"m <sup>3</sup> /d"	- cubic metres per day
"m <sup>3</sup> .km"	- cubic metre-kilometre



## CHAPTER 1

### The Application

Trans Mountain Pipe Line Company Ltd., formerly Trans Mountain Oil Pipe Line Company, was incorporated in 1951 by a Special Act of Parliament and continued in 1979 under the Canada Business Corporations Act. The Company owns and operates an oil pipeline system extending from Edmonton, Alberta to Burnaby, British Columbia. The system includes a condensate gathering facility at Edson, Alberta and connects near Sumas, British Columbia to its wholly-owned American subsidiary, Trans Mountain Oil Pipe Line Corporation.

Trans Mountain's initial toll hearing, held in November and December 1977, was followed by a second hearing in November 1980. During 1982 the Company had two toll adjustments on 15 April and 1 September. By an application dated 3 November 1982, Trans Mountain requested orders to approve:

- 1) new tolls,
- 2) a change in tariff wording, and
- 3) interim tolls pending the disposition of its application.

By Order No. TOI-1-82, the Board granted interim tolls, effective 3 December 1982, such tolls to be in effect until the issuance of a final order with respect to the application. By further Order No. RH-7-82, the Board set the application down for a public hearing commencing 24 January 1983. Interventions were received on behalf of Trans-Northern Pipelines Inc., the Attorney General of British Columbia, Air Canada, Canadian Pacific Airlines Limited, and Pacific Western Airlines Ltd.

At the invitation of the Board, Gulf Canada Products Company, one of the Applicant's shipper companies, provided witnesses to address the matter of throughput.



## CHAPTER 2

### Rate Base

#### SUMMARY OF RATE BASE

The Board has determined average net assets in service by using a thirteen-month average and reduced the average minor plant additions and the related accumulated depreciation by 20 percent to reflect the historical completion percentage. The amount of rate base components, as proposed by the Applicant and as allowed by the Board, are summarized in Table 2-1. Board adjustments to rate base are explained in detail in this chapter and are calculated in Appendix III, page 1.

#### AVERAGE ASSETS IN SERVICE

The requested plant in service was calculated as the average of net assets in service at the beginning and end of the test year. During cross-examination Board Counsel suggested that the effect of using the simple average of plant in service would be to allow the Company to earn a return on assets placed in service in the latter part of the test year as if those assets had been in service from 1 July. Also, until the assets were actually placed in service, interest during construction would accrue for the plant under construction. The Applicant agreed that there was a potential for double counting in this manner, but indicated that assets put in service during the first few months of the year earn the same return as assets put in service during the latter part of the year and that, normally the two circumstances would offset each other. The Applicant agreed that, in light of the fact that a significant proportion of plant additions associated with the upgrading program are proposed to be put in service late in 1983, it might be more appropriate to calculate these plant additions on the basis of a thirteen-month or some other weighted average method. For normal additions, however, the Company maintained that it is reasonable to assume that assets will be placed in service evenly during the year and that the use of the mid-year average for inclusion in the rate base is appropriate.

One intervenor supported the proposal that plant additions be accounted for on a monthly average basis. This would minimize the distortion inherent in making major additions to rate base during the latter part of the test year.

The Board notes that a large proportion of the current plant additions will not be placed in service until the latter part of the test year. In these circumstances, the Board considers that the use of a thirteen-month average is appropriate to calculate the plant in service. The assets in service have been adjusted to reflect this methodology.

#### PLANT ADDITIONS

##### Inflation Factor

In its estimate of the 1983 rate base allowance for plant additions, Trans Mountain proposed utilization of an inflation rate of 9.39 percent. The Company stated that this rate was the best estimate it could obtain for 1983 inflation.

The Board notes that current projections of machinery and equipment price increases for 1983 over 1982 are in the 6 percent range, while wage and other price indicators have decelerated substantially over the last year. The Board concludes that an escalation factor of 6 percent for 1983 is a reasonable inflation adjustor for machinery and equipment. This will reduce the forecast plant additions by \$45,285 (see Appendix III, page 3 of 4).

##### Interest During Construction

Trans Mountain used a rate of 13.0 percent for interest during construction. This represented the test year long-term debt cost projected by the Company's expert witness.

During cross-examination a Company witness testified that the repowering program is to be financed by a temporary bank line-of-credit at the commercial prime interest rate until construction is completed and long-term debt financing can be arranged towards the end of 1983.

Since the repowering program is to be financed by a temporary bank line-of-credit and having given consideration to the expert witness' projections in relation to the prime rate to be in effect during the period in question, the Board finds an annual rate of 11.5 percent to be fair and reasonable for the purposes of calculating the allowance for interest during construction related to this program. This results in a reduction to rate base of \$12,691 (see Appendix III, page 3 of 4).

Table 2-1

	<u>Company Submission</u> (\$000)	<u>Board Adjustments</u> (\$000)	<u>Allowed by Board</u> (\$000)
<u>Transportation Plant</u>			
Edson Condensate Gathering Line	116	-	116
Trunk Line	135,417	(1,573) (1)	133,844
Leasehold Improvements	648	9 (1)	657
	<u>136,181</u>	<u>(1,564)</u>	<u>134,617</u>
<u>Accumulated Depreciation</u>			
Edson Condensate Gathering Line	62	-	62
Trunk Line	109,167	1,094 (1)	110,261
Leasehold Improvements	60	-	60
	<u>109,289</u>	<u>1,094</u>	<u>110,383</u>
Average Net Assets in Service	26,892	(2,658)	24,234
Working Capital	4,930	(702)	4,228
Deferred Tax Debit	2,037	(57)	1,980
Deferred Costs for Pump Station Abandonments	170	(42)	128 (2)
	<u>\$34,029</u>	<u>\$ (3,459)</u>	<u>\$30,570</u>

(1) See Appendix III for the calculation of Board adjustments.

(2) See Chapter 3, "Pump Station Abandonment Costs".

#### Class "C" Construction

Included in the total additions to plant forecast for the test year was \$3,271,700 for minor projects. During the hearing the Applicant was questioned on the probability of completing and placing in service the full amount of this construction. The Company was of the view that its historical completion rate was in the order of 95 percent, and it expected to complete and place in service all projects which were included in the application; however, Board Counsel suggested that historically Trans Mountain has completed only about 80 percent of the amount of minor construction projects approved by the Board.

Based on what the Board considers to be the Company's past performance, the Board has concluded that it would be reasonable to assume that the Applicant will complete a percentage of minor construction projects equal to the historical average. Therefore, the Board has adjusted the amount of the plant additions by \$220,000 and related accumulated depreciation by \$5,000 to reflect an 80 percent completion rate for the test year (see Appendix III, page 1 of 4).

#### Purchase of Leased Vehicles

Intervenors questioned the Applicant on the prudence of including in its rate base the purchase of previously leased vehicles, indicating that this might place an unwarranted burden on the shippers. The Company stated that there would be no additional cost as a result of the purchase. In fact, the analysis upon which the purchase decision was based indicated that there would be a small cost saving.

The Board finds that the purchase of previously leased vehicles was a prudent decision and agrees that their cost should be included in the rate base.

#### WORKING CAPITAL ALLOWANCE

The Applicant requested an allowance for working capital comprising a cash component determined by applying the factor 25/365 to the sum of operating expenses and estimated income taxes payable, and the average prepaid expenses and inventories outstanding at the end of each quarter.



None of the intervenors had any questions with respect to the working capital allowance.

During cross-examination Board Counsel suggested that the Company, by treating the amortization of prepayments as cash operating expenses, would have the opportunity to earn a return twice on this element of working capital, as follows: first, by being reflected in the cash component, and second, by being reflected in the average prepaid expense balance which is a separate component of working capital in the rate base. The Company maintained that the method used in the application was proper and that prepaid expenses are like inventories and should be treated similarly in working capital.

The Board finds that the methodology used by the Applicant in determining the allowance for cash working capital results in the Company's earning a return twice on the same element of working capital. Furthermore, the expenses resulting from the accounting amortization of prepayments had been excluded from the lead-lag study submitted by Trans Mountain for the 1980 toll hearing. The results of this study are being used to determine the provision for the cash requirement portion of the working capital in the current proceeding.

When prepaid expenses and inventories are examined in detail, it becomes evident that the two items have different characteristics. An expense prepaid at the beginning of the year, for example, is amortized in equal monthly amounts throughout the year and the amount amortized is added to operating expense and deducted from the prepaid balance. At year-end, the sum of the amortized prepaid amounts is included in the cost of service. The unamortized monthly average balance of the prepaid funds is included as a separate element of working capital allowing the Company an opportunity to earn a return thereon.

On the other hand, a Company must maintain inventories at a reasonable level to ensure that it has an adequate supply of parts. Whenever an item is issued from inventory, its replacement requires a cash outlay. Therefore, to maintain an adequate level of inventory throughout the year, the items used must periodically be replaced. Thus, a relatively constant level of investment in inventory is always on hand.

The Board has adjusted the working capital submitted by the Applicant by removing from cash operating expenses those expenses which result from the amortization of prepayments,

namely, taxes other than income taxes, insurance, rent, annuities, and other expenses - account 412. In addition, the Board has adjusted the amount of prepayments submitted by the Applicant to reflect the average balance as determined by the use of a thirteen-month average rather than a quarterly average because this provides a more accurate estimate of the amount of funds required to support prepayments.

#### ACCUMULATED DEFERRED TAX DEBIT

The Applicant proposed that the average accumulated deferred tax debit balance during the test period form part of its average rate base. The Applicant did not seek the amortization of the average accumulated deferred tax debit. Consequently, a rate of return equal to the rate of return on rate base would be earned on this amount. It was stated by the Company that the existence of this accumulated deferred income tax debit resulted from the accelerated amortization of Specially Classified Assets that was allowed in the 1978 Decision.

The Attorney General of British Columbia took the position that the treatment of the Specially Classified Assets which resulted from the 1978 Decision conferred significant benefits on the Company. The position was also taken that including this item in rate base and allowing a full return on it would confer an additional benefit on the Applicant by supporting assets no longer used and useful.

In 1978, the Board allowed rapid amortization and one-half the overall pre-tax rate of return on certain assets that were prudently acquired, but through circumstances beyond the control of the Company, were not fully used and useful at that time. The Board does not believe that this treatment conferred significant benefits on the Company.

The Board considers that the presence of a deferred tax debit is not unusual for a mature company, such as Trans Mountain, approaching a point at which its assets are almost fully depreciated. The only peculiar aspect of the present deferred tax debit balance is its timing. As a result of the rapid amortization of the Specially Classified Assets, this debit balance in the deferred tax account arose sooner than would normally have been expected.

The usual treatment of a deferred tax balance is that it be included in the calculation of rate base. Accordingly, the Board finds it appropriate to include in the rate base the average accumulated deferred tax debit balance



Table 2-2

Working Capital Allowance

	<u>Per Application (\$000)</u>	<u>Board Adjustment (\$000)</u>	<u>Allowed by Board (\$000)</u>
Operating Expenses	25,262	(711)	24,551
Less: Revenue Other than Carrier	(231)		(231)
Taxes Other than Income Taxes		(7,650)	(7,650)
Insurance		(642)	(642)
Rent		(466)	(466)
Annuities		(403)	(403)
Other Expenses - Account 412		(440)	(440)
Add: Rent Paid on Monthly Basis	<u>          </u>	<u>396</u>	<u>396</u>
	25,031	(9,916)	15,115
Income Tax Payable	<u>5,286</u>	<u>(3,027)</u>	<u>2,259</u>
	<u>\$30,317</u>	<u>\$(12,943)</u>	<u>\$17,374</u>
Cash Working Capital			
25/365 x \$30,317,000	2,076		
25/365 x \$17,374,000		(886)	1,190
Inventory	1,652		1,652
Prepaid Expenses	<u>1,202</u>	<u>184</u>	<u>1,386</u>
	<u>\$ 4,930</u>	<u>\$ (702)</u>	<u>\$ 4,228</u>

in the amount of \$1,980,237. Table 2-3 shows the calculation of the average accumulated deferred tax debit.

Table 2-3

Average Accumulated Deferred Tax Debit

Beginning deferred tax balance	<u>\$(2,221,000)</u>
Deferred taxes for the period	<u>481,527</u>
Ending deferred tax balance	<u><u>\$(1,739,473)</u></u>
Average of beginning and ending deferred tax balances (\$2,221,000 + \$1,739,473) ÷ 2 =	<u><u>\$(1,980,237)</u></u>

## CHAPTER 3

### Operating Expenses, Amortization and Depreciation

#### OPERATING EXPENSES

Operating expenses, as submitted by the Applicant and as approved by the Board, are summarized in Table 3-1. Comments on the adjustments appear in succeeding subsections of this chapter.

#### Wages, Salaries and Employee Benefits

In its estimate of 1983 wages and salaries, Trans Mountain proposed a 6 percent general increase and a 2 percent increase for merit, promotion and progression. The Company stated that its general increase in 1982 of 13.5 percent plus 2 percent for merit, promotion and progression followed the wage settlement pattern established throughout the Canadian oil industry.

Trans Mountain stated that its permanent staff increased from 174 in 1981, to 184 in 1982 and is projected to increase to 186 in 1983. The Applicant submitted that these additional employees are required to develop and implement the Company's computerized management system, to train as replacements for retiring employees and to fulfill the additional regulatory requirements.

Changes in the employee benefit expense amounts from the base year to the test year are primarily caused by the increased salary base and higher premiums. Benefits in each year amount to 23 percent of wages and salaries.

One intervenor argued that the current levels of staff additions and computerization are not consistent with the Company's shrinking pipeline operations.

Table 3-1

	<u>Company Submission</u> ( \$000 )	<u>Board Adjustments</u> ( \$000 )	<u>Allowed by Board</u> ( \$000 )
Wages and Salaries	7,225	(136)	7,089
Fuel and Power	1,467	(100)	1,367
Materials and Supplies	805	(9)	796
Outside Services	2,789	(217)*	2,572
Oil Losses	200	(200)	-
Law Expenses	133	(1)	132
Rent	440	-	440
Employee Benefits	1,660	(30)	1,630
Insurance	642		642
Other Expenses	2,490	(18)	2,472
Taxes Other than Income Taxes	7,650		7,650
Less: Portion of LPG Revenues	(239)		(239)
	<u>\$25,262</u>	<u>\$(711)</u>	<u>\$24,551</u>
* Study of Methanol Movement		\$150	
Study of Coal/Water Slurry Movement		50	
Inflation Adjustment		17	
		<u>\$217</u>	



It is the Board's view that the proposed wage and salary escalation rates for 1983 are reasonable and in compliance with federal government guidelines on wage restraint, as outlined in Section 6.(5) of Bill C-124. The changes in employee benefit costs for 1983 are also considered to be reasonable. The Board notes that the base year amounts of actual wages and salaries include 2 percent for additional compensation disallowed in 1982. The Board still considers that the 2 percent was excessive. Therefore, in calculating the 1983 proposed levels for wages and salaries, the Board used the 1982 approved increases to determine a 1982 base amount. The required adjustments for 1983 are \$136,000 for wages and salaries and \$30,000 for employee benefits. The Board accepts Trans Mountain's reasons for staff additions in both the base and test years.

#### Fuel and Power Costs

The Company included in the application a cost reduction of \$572,000 which it forecast it would experience in fuel and power costs for 1983. This is due to a forecast reduction in throughput from 23 900 m<sup>3</sup>/d in 1982 to 19 400 m<sup>3</sup>/d for 1983. The Applicant noted, however, that due to increases in the cost of gas, diesel fuel and electricity, ranging from 10 to 20 percent forecast for 1983, cost adjustments of \$208,000 were essential for the 1983 test year.

Under questioning by Counsel for the Attorney General of British Columbia, the Applicant indicated that the fuel and power costs shown for the Hinton, Niton and Stony Plain stations were for the provision of station heating and cathodic protection only, and did not reflect any pumping costs. Consequently, there would be no reduction in these costs following their abandonment, as cathodic protection would still be required.

Under cross-examination by Board Counsel, the Applicant agreed that in fact, following abandonment, the fuel and power costs of \$41,400 for Niton, \$4,600 for Hinton and \$60,000 for Stony Plain would disappear. The Applicant also indicated that the energy cost for cathodic protection was very small.

The Board is of the opinion that the Niton, Hinton and Stony Plain pump stations, which are scheduled to be dismantled in 1983, are not required to sustain the reduced throughputs forecast for 1983. Consequently, the Board requires that the \$1,467,000 fuel and power totals for 1983 be reduced by the \$106,000 fuel and

power costs shown for the Niton, Hinton and Stony Plain pump stations, and that an amount of \$2,000 be allowed for heating, lighting and cathodic protection at each station, for a total reduction in the cost of service of \$100,000.

#### Inflation Adjustment

The Applicant projected that prices for products and services purchased in 1983 will be a minimum of 8 percent higher than those purchased in 1982. Trans Mountain selected the 1983 escalation rate based on several economic indicators, such as the Consumer Price, Average Weekly Wage, Raw Material Price, and Industrial Selling Price indices, published in July 1982.

The Board notes that inflation, as measured by these indicators, has continued to moderate throughout 1982 and that this moderation is predicted to continue in 1983. Therefore, it is the Board's view that an escalation factor of 7 percent for 1983 is a reasonable adjustor for general operating expenses. This results in a reduction of \$45,000 in operating expenses: materials and supplies (\$9,000), outside services (\$17,000), law expenses (\$1,000), and other expenses (\$18,000).

#### Outside Services

For the test year Trans Mountain included in outside services an amount of \$325,000 for costs respecting various engineering studies. These studies are proposed for right-of-way stabilization, oil-water separation, consulting services, and studies of other products which might be moved through the system. Trans Mountain stated that the movement of methanol might have the greatest potential and that it was working closely with Biewag Energy Ltd. which had recently received a certificate from the Alberta Energy Resources Conservation Board authorizing the construction of a methanol plant. The Applicant pointed out that extensive technical studies were necessary to determine the feasibility of transporting methanol through the system. These studies are expected to cost \$150,000. If the project is found to be feasible, the increased throughput would be expected to provide some cost reduction to existing shippers. In addition, the Applicant indicated that a \$50,000 feasibility study of coal/water slurry was intended to update earlier work and enable the Company to provide an expanded service should the opportunity present itself. Again, the expected increase in throughput could provide some benefits to existing shippers.

The Applicant stated that it has been incurring costs for some thirty years relating to expansion of its business. It compared these activities with the continuing research and development expenses of a manufacturing company. It considered that the cost of studies directly related to expanding the use of its existing facilities was a proper business expense for the Company to incur in keeping with its mandate to get maximum efficiency from its facilities. Because of increasing costs and the increasing use of outside consultants, the Company indicated that perhaps a limit should be set on such expenditures, for example, 2 percent of allowable earnings, so that Trans Mountain would give emphasis to priority projects.

While such studies may be an appropriate activity for the Company to undertake, the Board is not prepared to decide at this time how much, if any, of the costs of studies for the movement of methanol and coal slurry should be reflected in the current cost of service. Therefore, the Board directs that the \$200,000 for these studies not be included in the cost of service for the test year. The Applicant may, however, place these costs plus interest, calculated at the prime rate, in a deferred account. The disposition of these amounts will be determined at a future toll hearing. The Board is not prepared to allow the Applicant a fixed percentage of its cost of service to be spent for project development, but rather finds it more appropriate that each project be considered on its own merit to determine whether it should be included in the cost of service.

#### Oil Loss Allowance

The Applicant included as part of its operating expenses, an amount of \$200,000 to cover the cost of oil losses which it might experience in the test year.

Counsel for the airlines noted that, using a five-year average to determine net oil losses as adopted by the Board for other pipeline companies, the Applicant had experienced a net gain of oil in its system. Based on the figures shown on page 4.1-8 of the application, the intervenor noted that the Applicant realized an average annual net gain of \$182,118 over the period from 1978 to 1982. During this time the Company had collected \$200,000 per year from the shippers and, therefore, he felt there was no justification for the oil loss allowance.

When questioned by Board Counsel, the Company agreed that it was not possible to forecast whether it would experience an oil loss or an oil gain in any given year, and that an oil loss in one year could be followed by several years in which actual oil gains were experienced. The Applicant agreed that over the last five years it had experienced a net gain in its system.

In establishing 1982 tolls, the Board had disallowed the oil loss allowance.

The Board is of the opinion that the Applicant has failed to establish a need for an annual oil loss allowance for the 1983 test year and, therefore, denies the Applicant's request.

#### Allocation of Administrative Expenses to Non-jurisdictional Operations

In the December 1980 Decision, the Board stated that before the next toll hearing Trans Mountain should establish a more reasonable basis for the allocation of administrative expenses to its non-jurisdictional operations.

During the current hearing, an intervenor pointed out that in the two years since the last decision, little in this regard had been done. He suggested that, if Trans Mountain declined to make a proper allocation, the Board should undertake the allocation for it, even if this were done on an arbitrary basis.

Since the Company has not reviewed the method used to allocate administrative expenses to non-jurisdictional operations, the Board directs the Company to undertake such a study and report the findings to the Board by 1 September 1983. In the meantime, the Board will accept the existing allocation.

#### TOLL HEARING EXPENSES

In the application, Trans Mountain proposed that its estimated toll hearing costs of \$240,000 be amortized over two years at \$120,000 annually commencing with the test year. The Company indicated that historically it has come before the Board for a toll hearing every two years. In the previous toll hearing held in 1980, the Company spent approximately \$275,000.

None of the intervenors adduced evidence with respect to toll hearing expenses.



The Board finds the estimated toll hearing costs to be acceptable and directs that \$120,000 of toll hearing costs be expensed in the test year, with the balance of costs actually incurred to be written off in the subsequent year.

#### WEST-TO-EAST PROJECT COSTS

The Applicant requested that the West-to-East pipeline development costs of \$3,151,894 be amortized over a three-year period. In July 1981, the Applicant concluded that, because of the unprecedented major decline in the demand for petroleum products in the United States, the project could not be financed in the foreseeable future. The Applicant asked the Board that any further consideration and action on the project be postponed indefinitely. The Company wrote off these expenses for tax and accounting purposes in 1981 on the advice of their auditors, however, the Company was still of the opinion that the costs were proper costs of service and should be borne by the present shippers. The Applicant filed evidence which indicated that, if the West-to-East project had proceeded, the shippers on the existing system could have received an estimated toll saving of some 17 percent per annum. This saving would have been achieved by the sharing of common costs and the transfer of unused pipeline loops to the proposed system.

An intervenor indicated that this quantification of benefits did not represent new evidence since it had been extracted from a prior hearing. The intervenor maintained that these costs had been disposed of in the December 1980 Decision.

The Board concludes that if the West-to-East pipeline had been built, some cost saving would have accrued to shippers on the existing system even though the proposed pipeline would not have been a part of the present system. The Board finds that a fair allocation of risk and cost to the present shippers is 25 percent of the developmental costs incurred. Thus, \$787,973 is allocated to the shippers. This amount is to be amortized over a three-year period at \$262,658 per annum.

#### PUMP STATION ABANDONMENT COSTS

The Applicant proposed that the \$540,000 estimated cost of removing 11 pump stations from service, less \$30,000 which is to be charged to Account 31 - Accumulated Depreciation - Transportation Plant, be amortized over three years commencing 1 January 1983, and that the unamortized average balance be included in rate

base. In the test year, the Applicant included \$170,000 in the cost of service and the average unamortized balance of \$170,000 was included in the rate base.

The Applicant indicated that there was a need to abandon the pump stations because all are unattended, many being in remote areas and, therefore, subject to vandalism. There are also continuing maintenance expenses associated with the facilities. Although the Board in its 1978 Decision allowed Trans Mountain to include in the cost of service the cost of maintaining assets specially classified, no useful purpose would be served in continuing to incur these costs since there is now no apparent likelihood of these facilities being reused. The costs to be incurred are necessary since these pump stations must now be abandoned. Furthermore, since these costs are not expected on an annual basis, it is reasonable to amortize them over a number of years.

During cross-examination, the Applicant was asked why the prescribed method of accounting for these pump station retirements was not followed. In response, the Applicant pointed out that these stations were fully depreciated and, therefore, recorded in the books at zero net book value; accordingly, there was nothing left to transfer out. If the cost to remove these assets was included in the books as a reduction to accumulated depreciation, there would be no corresponding asset to offset this amount. Had the Company strictly followed the method of accounting prescribed by the Oil Pipeline Uniform Accounting Regulations, the dismantling costs would have been transferred to the cost of service, since all related assets had been written off. The Applicant proposed to treat the net cost of abandonment as an asset to be amortized over three years. It also believed that to write off this "asset" in one year would increase the Company's deferred tax debits.

One intervenor took the position that, since there was no prospect of future use for these pump stations, no money should be spent for decommissioning and that it might be better to abandon the stations and allow them to deteriorate. The Applicant indicated that this could not be done without an order from the Board. The same intervenor also questioned the Applicant on why there were no proceeds of disposition shown with respect to salvage value and why there were no anticipated cost savings. The Applicant indicated that the costs shown were net of estimated salvage and any cost savings would be realized subsequent to the test year. The intervenor proposed that these



abandonment costs be reflected in subsequent years when the savings to shippers would be realized. He also suggested that there was no justification for including in rate base the unamortized portion of abandonment costs since this treatment was not allowed for toll hearing expenses.

The Board accepts that the cost of abandoning these pump stations is necessary and that such cost will be incurred to remove plant assets, all of which at one time were useful and necessary. The Board finds that the amortization period requested by the Applicant is too long and, therefore, directs that this cost be amortized over a two-year period at the rate of \$255,000 per year and the unamortized average balance of \$127,500 be included in the rate base.

### DEPRECIATION

The Applicant included depreciation expense in the cost of service based on expected assets in service during the test year and depreciation rates previously approved by the Board. Submitted at the end of 1979, these rates were designed to depreciate the remaining costs of the transportation plant over the ensuing ten-year period.

During cross-examination a Company witness stated that, as a result of the upgrading program, the facilities were expected to be useful for about fifteen years, this being the period over which the Company expected there would be oil available in Alberta to ship to the West Coast refineries. The witness indicated that, using the present depreciation schedule, the great bulk of transportation plant would be fully depreciated by 1990. He also stated that prudence required transportation plant to be depreciated over a shorter period than the economic life, otherwise, the result could be an undepreciated plant balance at the end of the economic life of the assets.

In addressing the issue of depreciation rates, the Company agreed that the transportation plant would be completely depreciated by 1993. This was based on the assumption that there would not be any substantial additions to plant after the test year. A Company witness was asked, in light of the fact that the economic life of the pipeline was expected to be fifteen years and that full depreciation would occur within ten years, whether it would be appropriate to continue to use rates which were designed to depreciate the transportation plant over a shorter period than its useful life. The witness maintained that the ten

years was predicated upon the assumption of no plant additions but, in fact, the Company expects to continue to make normal additions ranging from \$1 million to \$3 million per year. On the basis that additions to plant would be \$1 million per year, the witness expected that it would be 1996 before the undepreciated plant balance would be zero. The Company's position was that the rates presently approved should be used for determining depreciation expenses which would be included in the cost of service until a new depreciation study was submitted by the Company in the latter part of the test year.

None of the intervenors introduced evidence or questioned the Applicant on any aspect of depreciation.

From evidence adduced, the Board finds that the Applicant's transportation plant will be substantially depreciated before the end of its economic life. In setting depreciation rates, the probable physical and economic life of each plant group should be determined and a rate set that would depreciate the remaining costs of the group over the shorter of the economic or physical life. Without a depreciation study it would not be practical to design new rates. The Board, therefore, has not adjusted the Company's depreciation rates.

It is, however, an accepted principle of the cost of service rate base method of regulation to distribute the cost of facilities over the periods during which they will be providing a useful service. Since the transportation plant may be completely depreciated within the next ten to thirteen years, and the expected economic life is fifteen years, the Board has adjusted the Company's trunk line depreciation expense for the test year to include 12/15 of the proposed amount in the cost of service with the remaining 3/15 added to rate base. The Board is issuing an accounting order directing the Company to reflect in its accounts a depreciation expense which is in accord with this Decision. (See Appendix II).

Table 3-2

Calculation of Allowed Depreciation Expense

Depreciation Expense-Trunk Line	\$3,170,919
Less - Adjustment for Inflation and IDC Reduction for the Upgrading Expenditures	(594)
- Adjustment Reflecting Revisions to Minor Construction Projects	<u>(4,638)</u>
	3,165,687
Less Amount Disallowed 3/15 x \$3,165,687	<u>633,137</u>
	2,532,550
Depreciation-Condensate Gathering Line	2,313
Leasehold Improvements - Amortization	<u>39,643</u>
Total Expense	<u>\$2,574,506</u>

The Board directs the Applicant to undertake a comprehensive review of its depreciation policy and rates and to submit a depreciation study to the Board on or before 1 January 1984.

## CHAPTER 4

### Income Taxes

#### NORMALIZED INCOME TAXES

The Applicant has used the normalized method of calculating its income tax provision in the past and proposes to do so in the test year. Under the present circumstances, the Board considers the continued use of the normalized method appropriate. The Board has calculated the \$2,660,313 income tax provision using an income tax rate of 50.5 percent. This amount, which the Company is to include in its tolls, is calculated on a basis consistent with the after-tax return on equity implicit in the allowed deemed capital structure. Since taxes payable are included in working capital, an iterative process is required to compute rate base, return and income taxes. These calculations are shown in Appendix IV.

#### CORPORATE SURTAX

The Applicant included as part of the normalized income tax rate an amount related to the Federal Corporate Surtax. The surtax rate which the Applicant used did not recognize the proposed amendment which was introduced in the November 1981 Federal Budget. The Applicant indicated that it was bound by laws which had been enacted, but added that it had no reason to believe that the proposed amendment would not become law. The 5.0 percent Federal Corporate Surtax was introduced in 1979 to apply to the 1980 and 1981 taxation years. Resolution 102 of the November 1981 Federal Budget proposed to extend the surtax for two more years and reduce the rate from 5.0 percent to 2.5 percent. Bill C-139 which incorporated the proposed budget amendments is presently in the process of being approved by Parliament.

The Board has no reason to believe that the proposed amendment relating to the Federal Corporate Surtax will not become law and has decided that the rate of 2.5 percent should be used. The Board recognizes that the corporate surtax was instituted as a temporary measure in 1979 and may not form part of the overall tax rate in the future. Since the surtax is based on the Federal Part I taxes payable, the Board believes that a separate calculation of the surtax should be made. The Board has reduced the surtax component of the overall tax rate from 1.8 percent to 0.9(\*) percent and has prepared a

separate calculation. The calculation of the Federal Corporate Surtax Provision which the Applicant is authorized to include in its cost of service in the amount of \$79,897 is contained in Appendix IV.

#### INCOME TAX RATE

The Applicant used an overall tax rate of 52.30 percent which was based on a 5.0 percent Federal Corporate Surtax rate.

The overall income tax rate which the Board authorizes is shown in Table 4-1. This rate incorporates the change in the Federal Corporate Surtax rate discussed in the previous section.

Table 4-1

<u>Authorized Income Tax Rate</u>	
	<u>%</u>
Federal Corporate Tax	36.00
Composite Provincial Tax	<u>14.50</u>
Tax Rate (excluding corporate surtax)	50.50
Federal Corporate Surtax	<u>.90(*)</u>
Total Tax Rate	<u>51.40</u>
<hr/>	
(*) Federal Part I Tax x 2.5%	= 36% x 2.5%
	= .90%



## CHAPTER 5

### Rate of Return

#### CAPITAL STRUCTURE

Trans Mountain applied for a rate of return on rate base of 15.80 percent. The rate of return was based on a deemed capital structure which was equated to average utility rate base projected to be outstanding during the test year. The applied-for deemed capital structure in conjunction with its individual and overall requested rates of return, is shown in Table 5-1.

Table 5-1

#### Requested Rate of Return

	<u>Deemed Capital Structure</u>	<u>Cost Rate</u>	<u>Cost Component</u>
	%	%	%
Long-Term Debt	30.0	13.0	3.90
Common Equity	70.0	17.0	11.90
			<u>15.80</u>

The Company submitted that the applied-for capital structure was appropriate in that it would approximate Trans Mountain's actual capital structure at the end of the test year and would remain in place until the Company's next toll hearing. It also indicated that this capital structure was recommended by the Company's expert witness, based on considerations relating to the business risks, maturity and borrowing capacity of the pipeline operation.

A Company witness indicated that the Company is proceeding with a system rehabilitation program. It is to be completed during the test year and will be financed entirely by long-term debt. This would leave Trans Mountain with a debt component approaching 30 percent of its regulated assets at December 1983. Cross-examination revealed that long-term financing will be arranged with a bank or institutional lender during 1983, with bridge financing to be in effect until that time. It was also observed that actual long-term debt will average 15 percent of the Company's capital structure during the test year.

The expert witness contended that a capital structure comprising 30 percent debt and 70 percent equity was appropriate, based on his view of Trans Mountain's business risks, the historical evolution of the Company's capital structure and the amount of debt capital that Trans Mountain could raise on a practical basis in today's capital markets.

Trans Mountain's business risk was seen to consist of the following principal elements: demand risk, supply risk, political and/or regulatory risk. The expert witness concluded that the demand risk faced by the Company's regulated operations was greater than that faced by other pipelines regulated by the Board. An absence of long-term contracts was cited as a factor causing Trans Mountain's higher demand risk. Cross-examination, however, revealed that the comment was solely in reference to the contrast between oil and gas pipelines and that the Company was no better or worse off than other oil pipeline companies in this respect.

Determination of throughput by a limited number of refinery shippers who serve a volatile market was noted as heightening demand risk. In this connection, the expert witness referred to the volatile B.C. economy effecting further forecast reductions in throughput, the pending closure of Gulf's Kamloops refinery and the pricing and availability of natural gas in B.C. combined with the federal government's off-oil incentive program. During the hearing, the witness acknowledged not having analyzed Trans Mountain's susceptibility to a downturn in the B.C. economy and not having conducted specific studies to quantify the potential impact of federal government energy policy on the Company's operations.

The potential for competition from other modes of transport, including the movement of oil products into B.C. from Alberta and the importation by tanker of offshore oil, was also put forward as occasioning higher demand risk for the Applicant. The Company stated that the expansion of several Alberta refineries could result in greater movement of products into B.C., given the economies of scale associated with processing crude at larger facilities.

In this regard, witnesses representing one of the shippers suggested that the importation of offshore crude oil was unlikely in the short term, but unpredictable in the longer term. They were, however, unable to confirm the Company's assertion of a trend towards increased product movement into B.C. In their opinion, all refineries look to the most efficient way of supplying the B.C. market on an ongoing basis.

A high degree of operating leverage was noted as magnifying the effects of the demand risk to which Trans Mountain is exposed. In this regard, a Company witness pointed out that property taxes, the Company's largest single fixed cost, had increased significantly for the test year, increasing its already high degree of operating leverage.

Factors having an offsetting or ameliorative effect on demand risk were examined during the hearing. The expert witness noted that the toll adjustment procedures available to the Company afforded a measure of protection from demand risk. Similarly, the allowance of the proposed change in tariff wording was characterized as effecting a reduction of the impact of demand risk. Finally, a Company witness testified that the recent amendment of the Act to provide for interim toll relief could result in a reduction of Trans Mountain's business risk.

The expert witness stated that Trans Mountain's supply risk was greater than that of gas pipelines and had increased since the Company's last toll hearing due to declining oil reserves in western Canada and a potential change in the existing system of allocating available oil supplies. Testimony of the witnesses from one of the shipper-companies supported the contention of reduced potential oil reserves in western Canada. However, the Company's expert witness agreed that Trans Mountain must have some confidence that sufficient supply will be available to ensure recovery of the investment in the upgrading program. Also, the expert witness was unable to conclude that the Company's supply risk was greater than that of other oil pipelines regulated by the Board. In addition, refiners in western Canada continue to have first access to available domestic crude supplies and there is no reason to conclude that this situation will change.

In the area of regulatory risk, the possibility of a change in the methodology employed for rate regulation was cited as a risk facing Trans Mountain. However, during cross-examination the expert witness agreed that

if progress were made towards a new regulatory system which would alleviate the uncertainty associated with the Company's diminishing rate base, this would have a beneficial effect on the market price of its stock.

Both the expert witness and a Company witness asserted that the proposed capital structure was appropriate, given the historical evolution of the Company's capital structure. It was stated that the equity component of capital structure naturally thickens with age and that this should be taken into account in imputing a capital structure for Trans Mountain. The expert witness also stated that lenders would hesitate to lend funds to the Company solely for the purpose of repaying shareholders' equity capital. However, it was acknowledged during cross-examination that, provided a 3.5 times interest coverage ratio could be maintained on a prospective basis, some lenders might advance funds. In addition, the witness was unable to state that the Applicant had been refused a loan for this specific purpose.

The expert witness submitted a quantitative estimate of Trans Mountain's maximum borrowing capacity based on an interest coverage requirement of 3.5 times and a debt cost of 13.0 percent. Based on an average of 1981-82 utility earnings before interest and taxes, the witness calculated that the Company would be able to support debt financing of 35.7 percent of the proposed capital structure. If only 1982 earnings were referenced, the calculation suggested the Company could support only 25.6 percent of the proposed capital structure via debt financing. From these results the witness concluded that an appropriate capital structure would consist of approximately 30 percent debt capital.

Alternative methods of estimating the Company's maximum borrowing capacity were proposed. The witness did not object to one proposal which yielded a supportable debt figure amounting to 49.4 percent of the capital structure using the witness' methodology, but reflecting average earnings levels for the three-year period 1980 to 1982.

In response to cross-examination concerning Trans Mountain's takeover of Inland Natural Gas Co. Ltd., a Company witness indicated that Trans Mountain had negotiated a line of credit of up to \$15.0 million or 43.5 percent of its proposed total capital structure to meet the needs of Trans Mountain's regulated activities. He also testified that funds required to service the ING takeover debt would come first from Inland dividends, but that part of the



balance would be paid from the cash flow of Trans Mountain. This appears to the Board to be indicative of additional debt capacity over and above the 43.5 percent.

Having regard to the business risks to which Trans Mountain's regulated operations are exposed, to the historical evolution of its capital structure, and to the evidence presented in respect of the Company's borrowing capacity, the Board has decided that, for the purposes of establishing a just and reasonable rate of return on rate base, the rate base be considered to be financed in the proportions of 45.0 percent long-term debt and 55.0 percent common equity. The individual cost rates associated with these two forms of capital are discussed below.

#### COST OF DEBT

The Company applied for a cost of debt of 13.00 percent on the debt component in capital structure. This rate was recommended by the Applicant's expert witness based on its analysis of Canadian and American bond and money markets since the Company's last toll hearing and on its estimate of a prospective debt rating for Trans Mountain.

For the test year the expert witness forecasted an average interest rate of 12.75 percent for long-term "A" corporation bonds. It was also estimated that Trans Mountain would be accorded a "BB" to "BBB" utility debt rating on entering the long-term debt capital market. Based on these projections and on a term to maturity of five to seven years for a new debt issue, the witness concluded it would cost the Company 13.00 percent to raise debt capital in the market place. No intervenor took issue with the proposed cost rate and the Board accepts it as a reasonable basis on which to cost the long-term debt in the allowed capital structure.

#### RATE OF RETURN ON COMMON EQUITY

Trans Mountain applied for a rate of return on common equity of 17.00 percent. In requesting this rate of return, the Company again relied on the recommendation of its expert witness.

The expert witness arrived at the recommended rate of return through an analysis of returns applicable to two groups of industrial companies with risks perceived to be similar to other pipelines regulated by the Board, and a third group of telephone utilities chosen because of the expert witness' belief that they represent the only remaining group of largely non-diversified utilities.

The first section of the analysis dealt with the comparable earnings test and examined experienced book returns on common equity for the first two groups over the period 1975-81. The group results were then judgementally adjusted to reflect what the witness believed to be an appropriate market-to-book-value ratio and Trans Mountain's higher perceived level of risk.

The latter section of the analysis focused on estimating investors' required returns for all three groups based on experienced earnings/dividend growth rates and dividend yields, taking into account prospective economic trends for the test year. The IRR estimates were then adjusted to reflect a prospective return on book equity based on the perceived required market-to-book-value ratio. Both sections of the analysis led the expert witness to recommend a rate of return on common equity of 17 percent.

It was noted that the comparable earnings data used by the witness in developing the recommended rate of return did not reflect more current results than those experienced by industrial companies in 1981. The witness testified that 1982 data were excluded as they were not considered representative of a normal business cycle by virtue of the extreme declines in corporate profitability that were experienced. The witness also indicated that inclusion of the 1982 data in the group of companies studied would have exerted a downward effect on the comparable earnings measure and, hence, the return on equity recommendation.

In this regard, the expert witness testified that a pipeline or regulated utility generally should to some extent track, but not match, the peaks or valleys achieved by the unregulated sector. However, it would appear to the Board that the derivation of the rate of return on equity recommendation, based on a comparable earnings analysis which excludes more current data, would not accomplish this.

The expert witness was also questioned why the allowable rate of return on equity should remain relatively high when inflation rates are decreasing and are projected to remain at a lower level for some time. In response, the witness indicated that higher real costs of capital will continue to be required by investors during the test year. He further suggested that what seems to be required is not only a downward trend in the inflation rate but stability in the inflation rate for some time before investors will reduce their required real rates of return.



The Board is of the view that the determination of a just and reasonable rate of return on common equity requires the exercise of judgement. Having regard to all of the evidence presented and giving consideration to current and prospective economic trends, the Board finds 15.50 percent to be a fair and reasonable rate of return on the allowed 55.0 percent deemed common equity ratio.

#### RATE OF RETURN ON RATE BASE

Based on its findings in this case, the Board has decided that a rate of return on rate base of 14.38 percent is just and reasonable. The derivation of this rate of return is presented in Table 5-2.

Table 5-2

#### Allowed Rate of Return

	<u>Deemed Capital Structure</u> %	<u>Cost Rate</u> %	<u>Cost Component</u> %
Long-Term Debt	45.0	13.0	5.85
Common Equity	55.0	15.5	<u>8.53</u>
Rate of Return on Rate Base			<u>14.38</u>

## CHAPTER 6

### Total Cost of Service / Revenue Requirement

The following table presents a summary of adjustments, and the approved cost of the requested cost of service, Board service/revenue requirement.

Table 6-1

	<u>Company Submission</u> ( \$000 )	<u>Board Adjustments</u> ( \$000 )	<u>Allowed by Board</u> ( \$000 )
Operating Expenses	25,262	(711)	24,551
Toll Hearing Costs	120	-	120
Amortization of West-to-East Project	1,051	(788)	263
Cost of Abandoning Pump Stations	170	85	255
Depreciation Expense	3,213	(638)	2,575
Income Tax Provision	4,440	(1,780)	2,660
Surtax	182	(102)	80
Return on Rate Base	<u>5,377</u>	<u>(981)</u>	<u>4,396</u>
Total Cost of Service	39,815	(4,915)	34,900
Less: Expense Recovered	<u>(231)</u>	<u>-</u>	<u>(231)</u>
Net Cost of Service	<u>\$39,584</u>	<u>\$(4,915)</u>	<u>\$34,669</u>

## CHAPTER 7

### Toll Design and Other Tariff Matters

#### THROUGHPUT

Trans Mountain's forecast of petroleum deliveries in 1983, based on estimates provided by the shippers, is 19 400 m<sup>3</sup>/d of which 18 100 m<sup>3</sup>/d would be delivered to domestic refineries in B.C. and 1 300 m<sup>3</sup>/d to refineries in Washington State. In comparison to throughput during 1982, this would be a reduction of 4 467 m<sup>3</sup>/d resulting from reduced volumes moving under exchange arrangements and lower demand by domestic refiners.

The Board is satisfied that the Applicant's forecast of petroleum deliveries in 1983 represents a reasonable estimate and recommends that it be used for the design of tolls. (See Table 7-1.)

Table 7-1

#### 1983 PETROLEUM DELIVERIES (m<sup>3</sup> per day)

##### FROM EDMONTON

Density 876 to 779 inclusive	
to Kamloops	400
to Sumas	1 200
to Vancouver	13 200
Density 778 to 612 inclusive	
to Vancouver	200
Density less than 612	
to Sumas	100

##### FROM EDSON

Density 876 to 779 inclusive	
to Vancouver	1 800
Density 778 to 612 inclusive	
to Vancouver	100

##### FROM KAMLOOPS

Density 876 to 779 inclusive	
to Vancouver	2 300
Density 778 to 612 inclusive	
to Vancouver	100
Total	<u>19 400</u>

#### ALLOCATION OF RATE BASE AND COST OF SERVICE

During the hearing the Company acknowledged that its current toll design may favour short-haul shippers at the expense of long-haul shippers; however, it considered the current toll design satisfactory at this time.

The Board notes that Trans Mountain's toll design has never been the subject of a satisfactory rate base and cost allocation study, and particularly notes the relatively small proportion of the cost of service, currently 6 percent, allocated to the terminalling cost function. The Board, therefore, requires that Trans Mountain complete a study of its current rate base and cost allocation methodology by January 1984, particularly with regard to the terminalling function. In the meantime, the Board accepts the Company's assertion that the present toll design is satisfactory.

#### DETERMINATION OF TOLLS

The Board has approved a revenue requirement of \$34,669,000 and a throughput forecast of 19 400 m<sup>3</sup>/d as the basis for toll design. Appendix V shows the allocation of the revenue requirement between terminalling and transmission functions and the calculation of unit charges in accordance with established principles. These unit charges provide the basis for the calculation of cost-based tolls. The Board finds that the tolls contained in Schedule "A" of Appendix I are just and reasonable and directs that these tolls be charged, effective 1 April 1983.

For illustrative purposes, Table 7-2 shows selected tolls to Burnaby for crude with a density 876 to 779. The tolls in effect 1 September 1982 are compared with those per the application and those approved by the Board for the interim period and the test year.

#### INTERIM TOLLS

By Order No. TOI-1-82, the Board authorized Trans Mountain to charge interim tolls effective 3 December 1982. These tolls were calculated using the 1982 approved cost of service of \$36,067,000 and a throughput forecast of 21 900 m<sup>3</sup>/d. Trans Mountain subsequently applied for an adjustment to these interim tolls



Table 7-2

## Comparative Tolls

(Dollars per m<sup>3</sup>)

	Effective 1 September 1982	Per Application	Board Approved	
			For Interim Period	For Test Year
From Edmonton to Burnaby	4.648	6.302	4.942	5.525
From Kamloops to Burnaby	1.499	2.028	1.596	1.751

based upon a further decline in its throughput forecast to 19 400 m<sup>3</sup>/d. The Board was not satisfied that such relief was warranted at that time and dismissed that application.

Section 52.2 of the Act allows the Board, where it has made an interim toll order, to direct a company to recover in its tolls the amount by which the tolls, determined by the Board to be just and reasonable, exceed the tolls charged by the company under the interim order, together with interest. The Board finds that just and reasonable tolls for the period 3 December 1982 to 31 March 1983 are the tolls as set out in Schedule A of Appendix I. These tolls have been calculated using the approved cost of service of \$34,669,000 and a throughput of 19 400 m<sup>3</sup>/d. The Board directs Trans Mountain to issue revised billings for this period to reflect the difference between the interim tolls calculated as prescribed in the interim order and the tolls as prescribed in Appendix I, together with interest at 11.5 percent per annum.

CHANGE IN TARIFF WORDING

The Company asked for an Order under Section 50 of the Act approving a change in the tariff wording which was designed to eliminate the inherent delay in giving effect to new tolls resulting from pipeline transit time. Transit time is defined as the period that elapses between the date on which a shipment of petroleum is received by Trans Mountain and the date of delivery. The average transit time is 30 days.

Rule 70 of the tariff states that the petroleum transported by Trans Mountain is subject to the tolls in effect on the date Trans Mountain receives the petroleum. The Company proposed that the tariff wording be amended so that the tolls take effect on the date that Trans Mountain delivers the petroleum. Elimination of

the lag associated with transit time would enable the revenue stream of Trans Mountain to respond to changes in the cost of service and throughput which often occur with little advance notice to Trans Mountain. The Company indicated that the shippers would receive notice of any proposed tariff changes prior to receipt of the petroleum by Trans Mountain because the average transit time was less than the 45-day filing notice required in the proposed Board toll adjustment procedure.

The Applicant stated that three to four months could elapse between the initial identification of a decline in throughput and the collection of new tolls based on the diminished volumes. This was broken down by a Company witness as follows:

- (i) 15 to 45 days between the time of the identification of the problem and the preparation of an application;
- (ii) 45 days for the Board to make a decision; and
- (iii) 30 days for the tolls to become effective, due to average transit time.

Trans Mountain pointed out that, based on their original calculation of throughput for the test year, every month of delay in implementing the requested tolls would result in a \$528,000 revenue shortfall. This would equate to a reduction in the return on rate base of approximately 0.7 percent per month. If the change in tariff wording were allowed, the shippers would benefit when tolls decreased and there would also be an improvement in the Company's ability to predict revenues. It was also pointed out by the Applicant that none of the shippers had intervened before the Board to object to the proposed change in tariff wording.

One intervenor took the position that the Applicant's proposal reduced the effective notice to shippers to 15 days but he agreed that neither the shippers nor the Applicant would know in advance the outcome of an application before the Board. This intervenor, however, indicated that it would be inappropriate to change the tariff wording where the Board has the opportunity to grant interim relief under Section 52.2 of the Act.

Another intervenor questioned the relevancy of using inventory figures in determining the average transit time, but the Applicant maintained that to operate efficiently it was necessary to maintain line fill and working stock because oil is delivered from the pipeline at a different rate than that at which it is received.

Since the average transit time for oil in the pipeline is 30 days and it is expected that the Board will take approximately 45 days to reach a decision, shippers will have notice of any proposed change in tolls at the time when they tender the oil for transportation. The proposed change in tariff wording will allow the Company more flexibility in adjusting for changes which affect its revenue requirement, and possibly reduce the Company's business risk. Therefore, the Board accepts the Company's proposal.

#### STABILITY OF EARNINGS

The Board notes that Trans Mountain's tolls are very sensitive to changes in throughput and that increases and decreases in throughput can occur on short notice. The Board considers that it would be useful to maintain a procedure whereby appropriate adjustments could be made to the tolls in an expeditious manner. Accordingly, the Board directs Trans Mountain to file with the Board and interested parties a tariff containing new tolls as soon as it is apparent that the actual average throughput will vary by 5 percent or more in the approved annual throughput of 19 400 m<sup>3</sup>/d.

In reviewing the approved cost of service, the Board has identified a number of items, such as amortizations of the costs for the West-to-East pipeline project, the pump station abandonments and the toll hearing, as well as the Federal Corporate Surtax, which will terminate within the next two to three years. The Board directs Trans Mountain to file with the Board and interested parties a tariff containing new tolls at least 45 days before any of these costs have expired or are fully amortized.

## CHAPTER 8

### Disposition

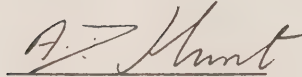
Orders No. TO-1-83 and TO-2-83 which are shown as Appendix I and Appendix II, respectively, are predicated upon these Reasons for Decision. The foregoing chapters, together

with the above Orders, constitute our Reasons for Decision and our Decision on the application by Trans Mountain Pipe Line Company Ltd. pursuant to Part IV of the NEB Act.



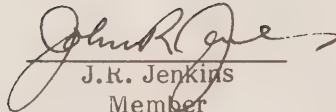
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L.M. Thur  
Presiding Member



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A.D. Hunt  
Member



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J.R. Jenkins  
Member



NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TO-1-83

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Trans Mountain Pipe Line Company Ltd. for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-T4-5.

BEFORE the Board on Friday the 25th day of March 1983.

WHEREAS an application dated 3 November 1982 has been made by Trans Mountain Pipe Line Company Ltd.

(hereinafter called "Trans Mountain") for orders fixing the just and reasonable tolls that Trans Mountain may charge for or in respect of the transportation of crude oil and other liquid hydrocarbons and for such further order or orders as will enable Trans Mountain to file a tariff containing tolls which are just and reasonable;

AND WHEREAS Trans Mountain also requested an order pursuant to Section 50 of the National Energy Board Act approving a change in the tariff wording designed to eliminate the inherent delay in giving effect to new tolls resulting from pipeline transit time;

AND WHEREAS Trans Mountain also requested an interim order pursuant to Sections 16.1 and 52.2 of the National Energy Board Act approving new tolls;

AND WHEREAS the Board has issued Order No. TOI-1-82, such interim order to remain in effect until a final order is issued with respect to the Part IV application;

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AND WHEREAS the Board has heard the evidence and submissions of Trans Mountain and all interested parties with respect to the Part IV application at a public hearing which commenced in Vancouver, British Columbia on 24 January 1983;

AND WHEREAS Section 52.2 of the National Energy Board Act allows the Board where it has made an interim toll order, to direct a company to recover in its tolls, in a manner satisfactory to the Board, the amount by which the tolls determined by the Board to be just and reasonable exceed the tolls charged by the company under the interim order, together with interest on the money so recovered;  
IT IS ORDERED THAT:

1. For the purpose of calculating the billings to be issued by Trans Mountain to its shippers, Order No. TOI-1-82 shall cease to have effect 31 March 1983.
2. Trans Mountain shall issue revised billings for the period 3 December 1982 to 31 March 1983 to reflect the difference between:
  - (a) the interim tolls calculated as prescribed in Schedule "A" to Order No. TOI-1-82; and
  - (b) the tolls calculated as prescribed in Schedule "A" to this Order, together with interest calculated at the rate of 11.5 percent per annum.

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-3-

AND IT IS FURTHER ORDERED THAT:

3. Trans Mountain shall, effective 1 April 1983, charge in respect of the transmission of oil by it on behalf of others, the tolls prescribed in Schedule "A" hereto.
4. The change in the wording of Rule 70 of the tariff to provide that oil accepted for transportation shall be subject to the tolls in effect on the date of delivery of such oil by the carrier is approved, effective 1 April 1983.
5. Trans Mountain shall forthwith file with the Board and serve on all its shippers and parties of record in the toll application a tariff containing tolls conforming with this order including revised wording of Rule 70.
6. Notwithstanding the filing of the new tariff and tolls, the same shall remain suspended and of no effect until 1 April 1983.
7. Those provisions of the tariff and tolls, or any portions thereof, that are contrary to any provisions of the National Energy Board Act, or to any order of the Board including this order, are disallowed effective 31 March 1983.

AND IT IS FURTHER ORDERED THAT:

8. Trans Mountain shall file with the Board, its shippers and parties of record in the toll application a tariff containing new tolls as soon as it is apparent that the actual average throughput will vary by 5 percent or more from the approved annual throughput of 19 400 m<sup>3</sup>/d.



9. Trans Mountain shall file with the Board, its shippers and parties of record in the toll application a tariff containing new tolls at least 45 days before the termination of the Federal Corporate Surtax or the full amortization of any of the following components of the approved cost of service: costs associated with the West-to-East pipeline project, costs associated with the pump station abandonments, costs associated with the toll hearing.

DATED at the City of Ottawa, in the Province of Ontario, this 25th day of March 1983.

NATIONAL ENERGY BOARD

A handwritten signature in dark ink, appearing to read "G. Yorke Slader", written in a cursive style.

G. Yorke Slader  
Secretary

REVISED  
SCHEDULE A

TRANS MOUNTAIN PIPE LINE COMPANY LTD.  
TOLLS EFFECTIVE 1 APRIL 1983  
IN DOLLARS PER CUBIC METRE

From	To	Density Ranges in Kilograms per Cubic Metre At 15° Celsius		
		Greater than 876	876 to 779 inclusive	778 to 612 inclusive
Edmonton	Burnaby and Port Mann	6.051	5.525	5.051
Edmonton	Kamloops	4.415	4.037	3.698
Edmonton	Sumas*	5.768	5.268	4.817
Edson	Burnaby and Port Mann	4.899	4.478	4.099
Edson	Kamloops	3.263	2.991	2.745
Edson	Sumas*	4.612	4.216	3.861
Kamloops	Burnaby and Port Mann	1.900	1.751	1.617
Kamloops	Sumas*	1.612	1.490	1.379
				1.122

GATHERING CHARGE - Where gathering service is performed by Trans Mountain Pipe Line Company Ltd. into its Edson Station from the Edson Gas Plant, a charge of 0.730 dollars per cubic metre will be made in addition to the above tolls.

WESTRIDGE LOADING CHARGE - A loading charge of 0.251 dollars per cubic metre will be made for all petroleum loaded out over the Westridge marine loading wharf.

All tolls and charges are payable in Canadian currency.

\* A point on the International Boundary near Sumas, British Columbia, where the pipeline of Trans Mountain Pipe Line Company Ltd. connects with that of Trans Mountain Oil Pipe Line Corporation.



ORDER NO. TO-2-83

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Trans Mountain Pipe Line Company Ltd. for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-T4-5.

BEFORE the Board on Thursday, the 14th day of April, 1983.

WHEREAS an application dated 3 November 1982 has been made by Trans Mountain Pipe Line Company Ltd.

(hereinafter called "Trans Mountain") for orders fixing the just and reasonable tolls that Trans Mountain may charge for or in respect of the transportation of crude oil and other liquid hydrocarbons and for such further order or orders as will enable Trans Mountain to file a tariff containing tolls which are just and reasonable;

AND WHEREAS the Board, following a public hearing, has issued Order No. TO-1-83 dated the 25th day of March 1983, setting just and reasonable tolls to be charged by Trans Mountain;

AND WHEREAS the tolls prescribed in Order No. TO-1-83 reflect twelve-fifteenths of the amount which would result from application of the depreciation rates approved by the Board for use in determining depreciation for accounting purposes;



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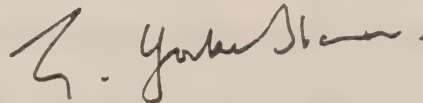
AND WHEREAS it is desirable that there be a proper matching of depreciation recorded for accounting purposes with depreciation allowed for toll making purposes;

IT IS ORDERED THAT:

1. Trans Mountain shall, for accounting purposes, record depreciation from 1 January 1983 using twelve-fifteenths of the depreciation rates authorized by the Board until such time as the Board otherwise directs.

DATED in the City of Ottawa, Province of Ontario this 18th day of April, 1983.

NATIONAL ENERGY BOARD

A handwritten signature in dark ink, appearing to read "G. Yorke Slader". The signature is fluid and cursive, with a large initial "G" and a long, sweeping underline.

G. Yorke Slader  
Secretary

SUMMARY OF BOARD ADJUSTMENTS TO RATE BASE

A. Trunk Line Adjustments

(\$000)

Assets in service as determined by the Applicant	\$ 135,417
Assets in service using a thirteen-month average	134,122 (1)
	<u>\$ 1,295</u>

Class "B" Adjustment:

Reduction resulting from a reduction of the inflation factor from 9.39% to 6%	45(2)
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Reduction of IDC resulting from a reduction of IDC rate from 13% to 11.5% and from a reduction in capital expenditures as a result of the change in inflation factor	13(2)
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Class "C" Adjustment:

Reduction of minor plant additions by 20% of \$1,102,000 the average amount requested by the Company to reflect the historical completion percentage	220 <u>\$ 1,573</u>
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B. Leasehold Improvement Adjustments

The increase results from the change in the method of determining average assets in service from the mid-year average to a thirteen-month average	<u>\$ 9</u>
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C. Accumulated Depreciation Adjustments - Trunk Line

Accumulated depreciation as determined by the Applicant	\$ 109,167
Accumulated depreciation using a thirteen-month average	110,583 (3) <u>\$ (1,416)</u>

Depreciation Expense	\$ 3,171
Less reduction Class B construction for adjustment to inflation factor and IDC rate	(1)(4) 1
Reduction of average depreciation on Class C construction by 20% of \$23,000	(5) 5
Adjusted depreciation expense	<u>3,165</u>
Depreciation expense 12/15 x \$3,165,000	<u>2,532</u> <u>\$ 633</u>

Average accumulated depreciation reduction due to adjustment to depreciation expense, 1/2 of \$633,000	316 <u>\$ (1,094)</u>
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(1) Assets in Service, Expected Additions and Retirement

Date	Assets in Service 01/01/83	Class "B"	Class "C"	Transfers in	Retirements	Balance
January 1	\$ 132,414,169	-	-	-	-	\$ 132,414,169
January 31	132,414,169	-	\$ 10,000	-	-	132,424,169
February 28	132,414,169	\$ 536,396	74,800	\$ 1,418,850	\$ (424,000)	134,020,215
March 31	132,414,169	536,396	74,800	1,418,850	(429,917)	134,014,298
April 30	132,414,169	1,143,839	151,400	1,418,850	(2,423,381)	132,704,877
May 30	132,414,169	1,143,839	195,400	1,418,850	(2,423,381)	132,748,877
June 30	132,414,169	1,143,839	1,443,200	1,418,850	(2,526,429)	133,893,629
July 31	132,414,169	1,143,839	1,490,200	1,418,850	(3,098,429)	133,368,629
August 31	132,414,169	1,143,839	1,490,200	1,418,850	(3,098,429)	133,368,629
September 30	132,414,169	1,143,839	1,590,200	1,753,947	(3,103,429)	133,798,726
October 31	132,414,169	1,143,839	1,590,200	1,753,947	(3,103,429)	133,798,726
November 30	132,414,169	8,415,432	2,985,200	1,753,947	(6,961,429)	138,607,319
December 31	132,414,169	8,415,432	3,235,200	2,046,278	(7,690,429)	138,420,650
Total	\$1,721,384,197	\$25,910,529	\$14,330,800	\$17,240,069	\$ (35,282,682)	\$1,743,582,913
Average*	\$ 132,414,169	\$ 1,993,118	\$ 1,102,369	\$ 1,326,159	\$ (2,714,052)	\$ 134,121,763

\* 13-month average



(2) Analysis of Adjustments for Inflation and IDC

<u>Date</u>	<u>Inflation Adjustment*</u>	<u>IDC Adjustment*</u>
January 1	-	-
January 31	-	-
February 28	\$ 7,300	\$ 1,284
March 31	7,300	1,284
April 30	18,700	3,866
May 31	18,700	3,866
June 30	18,700	3,866
July 31	18,700	3,866
August 31	18,700	3,866
September 30	18,700	3,866
October 31	18,700	3,866
November 30	221,600	67,678
December 30	<u>221,600</u>	<u>67,678</u>
Total	<u>\$588,700</u>	<u>\$164,986</u>
Average**	<u>\$ 45,285</u>	<u>\$ 12,691</u>

\* Total project costs as estimated by Company less Board estimates to reduce inflation factor from 9.39% to 6% and IDC from 13% to 11.5%.

\*\* 13-month average.

(3) Summary of Accumulated Depreciated - Trunk Line

Date	Balance 01/01/83	Cumulative Depreciation Existing Plant	Class "B"	Class "C"	Retirement	Adjusted Depreciation Expense	Retirements	Proceeds of Disposition	Accumulated Depreciation Balance
January 1	\$ 101,268,063		-	-					\$ 101,268,063
January 31	101,268,063	\$ 258,590	-	-	\$ (4,947)	\$ 258,590			101,526,653
February 28	101,268,063	517,185		\$ 167	\$ (4,947)	512,405	\$ (424,000)		101,356,468
March 31	101,268,063	775,775	\$ 975	1,206	(4,947)	773,009	(429,917)	\$ 2,000	101,613,155
April 30	101,268,063	1,034,365	1,950	2,561	(23,183)	1,015,693	(2,423,381)	13,000	99,873,375
May 31	101,268,063	1,292,955	2,925	4,583	(23,183)	1,277,280	(2,423,381)	13,000	100,134,962
June 30	101,268,063	1,551,545	5,302	6,765	(29,323)	1,534,289	(2,526,429)	13,000	100,288,923
July 31	101,268,063	1,810,135	7,677	18,185	(32,660)	1,803,337	(3,098,429)	69,000	100,041,971
August 31	101,268,063	2,068,725	10,052	29,675	(32,660)	2,075,792	(3,098,429)	69,000	100,314,426
September 30	101,268,063	2,327,315	12,427	41,165	(37,690)	2,343,217	(3,103,429)	69,000	100,576,851
October 31	101,268,063	2,585,905	14,802	52,863	(37,690)	2,615,880	(3,103,429)	69,000	100,849,514
November 30	101,268,063	2,844,495	17,177	64,553	(41,585)	2,884,640	(6,961,429)	48,500	97,239,774
December 31	101,268,063	3,103,085	32,586	79,731	(44,483)	3,170,919	(7,690,434)	48,500	96,797,048
Total	\$1,316,484,819	\$20,170,075	\$105,873	\$301,454	\$ (312,351)	\$20,265,051	\$ (35,282,687)	\$414,000	\$1,301,881,183
Average*	\$ 101,268,063	\$ 1,551,544	\$ 8,144	\$ 23,189	\$ (24,027)	\$ 1,558,850	\$ (2,714,052)	\$ 31,846	\$ 100,144,707

Average accumulated depreciation  
Add: main line adjacent to loop as at 01/01/83  
Transfer of average depreciation on amortized assets

\$ 100,144,707  
9,111,543  
1,326,159  
\$ 110,582,409

\* 13-month average

(4) Depreciation expense estimated by the Company less depreciation expense estimated by the Board after adjusting the cost of these facilities for inflation and IDC.

INCOME TAX CALCULATION

First Approximation of Rate Base

Average net plant in service		\$24,234,433
Average deferred tax debits		1,980,237
Average pump station abandonment costs		127,500
Cash Working Capital		
Operating Expenses	\$15,115,000	
Income taxes payable	-	
Corporate Surtax Revenue Requirement	-	
	<u>\$15,115,000</u>	
25/365 x \$15,115,000		1,035,274
Inventories		1,652,000
Prepaid Expenses		<u>1,386,000</u>
Average Net Rate Base		<u>\$30,415,444</u>



First Approximation of Income Taxes Payable

Utility income after tax ( $\$30,415,444 \times .0853$ )	\$2,594,437
Utility income tax provision ( $\$2,594,437 \times \frac{.505}{.495}$ )	2,646,850
Depreciation	\$2,574,506
Amortization - West-East pipeline	262,658
Amortization - toll hearing costs	(120,000)
Capital cost allowance	(3,011,886)
Pump station abandonment costs	(255,000)
Interest during construction	<u>(403,797)</u>
	<u>(953,519)</u>
Taxable Income	<u>\$4,287,768</u>
Federal Part 1 Tax Payable ( $\$4,287,768 \times .36$ )	\$1,543,596
Provincial Income Tax Payable ( $\$4,287,768 \times .1450$ )	<u>621,726</u>
Income Taxes Payable	<u>\$2,165,322</u>
Corporate Surtax ( $\$1,543,596 \times .025$ )	\$ 38,590
Corporate Surtax Provision ( $\$38,590 \times \frac{.514}{.486}$ )	<u>40,813</u>
Corporate Surtax Revenue Requirement	<u>\$ 79,403</u>

Second Approximation of Rate Base

Average net plant in service		\$24,234,433
Average deferred tax debits		1,980,237
Average pump station abandonment costs		127,500
Cash Working Capital		
Operating Expenses	\$15,115,000	
Income taxes payable	2,165,322	
Corporate Surtax Revenue Requirement	<u>79,403</u>	
	<u>\$17,359,725</u>	
25/365 x \$17,359,725		1,189,022
Inventories		1,652,000
Prepaid Expenses		<u>1,386,000</u>
Average Net Rate Base		<u>\$30,569,192</u>

Second Approximation of Income Taxes Payable

Utility income after tax ( $\$30,569,192 \times .0853$ )	\$2,607,552
Utility income tax provision ( $\$2,607,552 \times \frac{.505}{.495}$ )	2,660,230
Depreciation	\$2,574,506
Amortization - West-East pipeline	262,658
Amortization - toll hearing costs	(120,000)
Capital cost allowance	(3,011,886)
Pump station abandonment costs	(255,000)
Interest during construction	<u>(403,797)</u>
	<u>(953,519)</u>
Taxable Income	<u>\$4,314,263</u>
Federal Part 1 Tax Payable ( $\$4,314,263 \times .36$ )	\$1,553,135
Provincial Income Tax Payable ( $\$4,314,263 \times .1450$ )	<u>625,568</u>
Income Taxes Payable	<u>\$2,178,703</u>
Corporate Surtax ( $\$1,553,135 \times .025$ )	\$ 38,828
Corporate Surtax Provision ( $\$38,828 \times \frac{.514}{.486}$ )	<u>41,065</u>
Corporate Surtax Revenue Requirement	<u>\$ 79,893</u>



Third Approximation of Rate Base

Average net plant in service		\$24,234,433
Average deferred tax debits		1,980,237
Average pump station abandonment costs		127,500
Cash Working Capital		
Operating Expenses	\$15,115,000	
Income taxes payable	2,178,703	
Corporate Surtax Revenue Requirement	<u>79,893</u>	
	<u>\$17,373,596</u>	
25/365 x \$17,373,596		1,189,972
Inventories		1,652,000
Prepaid Expenses		<u>1,386,000</u>
Average Net Rate Base		<u>\$30,570,142</u>

Third Approximation of Income Taxes Payable

Utility income after tax ( $\$30,570,142 \times .0853$ )	\$2,607,633
Utility income tax provision ( $\$2,607,633 \times \frac{.505}{.495}$ )	2,660,312
Depreciation	\$2,574,506
Amortization - West-East pipeline	262,658
Amortization - toll hearing costs	(120,000)
Capital cost allowance	(3,011,886)
Pump station abandonment costs	(255,000)
Interest during construction	<u>(403,797)</u>
	<u>(953,519)</u>
Taxable Income	<u>\$4,314,426</u>
Federal Part 1 Tax Payable ( $\$4,314,426 \times .36$ )	\$1,553,193
Provincial Income Tax Payable ( $\$4,314,426 \times .1450$ )	<u>625,592</u>
Income Taxes Payable	<u>\$2,178,785</u>
Corporate Surtax ( $\$1,553,193 \times .025$ )	\$ 38,830
Corporate Surtax Provision ( $\$38,830 \times \frac{.514}{.486}$ )	<u>41,067</u>
Corporate Surtax Revenue Requirement	<u>\$ 79,897</u>

Fourth Approximation of Rate Base

Average net plant in service		\$24,234,433
Average deferred tax debits		1,980,237
Average pump station abandonment costs		127,500
Cash Working Capital		
Operating Expenses	\$15,115,000	
Income taxes payable	2,178,785	
Corporate Surtax Revenue Requirement	<u>79,897</u>	
	<u>\$17,373,682</u>	
25/365 x \$17,373,682		1,189,978
Inventories		1,652,000
Prepaid Expenses		<u>1,386,000</u>
Average Net Rate Base		<u>\$30,570,148</u>



Fourth Approximation of Income Taxes Payable

Utility income after tax ( $\$30,570,148 \times .0853$ )	\$2,607,634
Utility income tax provision ( $\$2,607,634 \times \frac{.505}{.495}$ )	2,660,313
Depreciation	\$2,574,506
Amortization - West-East pipeline	262,658
Amortization - toll hearing costs	(120,000)
Capital cost allowance	(3,011,886)
Pump station abandonment costs	(255,000)
Interest during construction	<u>(403,797)</u>
	(953,519)
Taxable Income	<u>\$4,314,428</u>
Federal Part 1 Tax Payable ( $\$4,314,428 \times .36$ )	\$1,553,194
Provincial Income Tax Payable ( $\$4,314,428 \times .1450$ )	<u>625,592</u>
Income Taxes Payable	<u>\$2,178,786</u>
Corporate Surtax ( $\$1,553,194 \times .025$ )	\$ 38,830
Corporate Surtax Provision ( $\$38,830 \times \frac{.514}{.486}$ )	<u>41,067</u>
Corporate Surtax Revenue Requirement	<u>\$ 79,897</u>

TOLL DESIGN

(\$000)

A. TERMINALLING CHARGE

Terminalling Rate Base:

Average Assets in Service	\$10,325 <sup>(1)</sup>
Average Accumulated Depreciation	7,978 <sup>(1)</sup>
Net Average Assets in Service	<u>\$ 2,347</u>

Depreciation Expense	\$ 306 <sup>(1)</sup>
Allowed Depreciation Expense	245
Depreciation Expense Disallowed	<u>\$ 61</u>

Additions to Rate Base (0 + \$61)/2	30
Working Capital	87 <sup>(2)</sup>
Rate Base Terminalling Function	<u>\$ 2,464</u>

Terminalling Cost of Service:

Return on Rate Base \$2,464 at .1438	\$ 354
Income Tax Expense \$2,464/30,570 x (\$2,660 + \$80)	221
Depreciation Expense	245
Operating Cost - Maintenance	435
- Oil Losses	-
- Insurance	13
- Property Taxes	436
- General and Administration	163
Terminalling Cost of Service	<u>\$ 1,867</u>

Estimated Throughput 19 400 m<sup>3</sup> at 365 Days = 7 081 000

Terminalling Charge \$ 0.264/m<sup>3</sup>

B. TRANSMISSION CHARGE

Total Revenue Requirement	\$ 34,669
Less: Terminalling Charge Revenue (\$0.264 x 7 081 000)	( 1,869)
Edson Gathering Line Revenue	(27)
	<u>\$ 32,773</u>

Estimated cubic metre-kilometres 7 139 215 310 m<sup>3</sup>.km

Transmission Charge \$0.004590561/m<sup>3</sup>.km

C. CALCULATION OF EDSON GATHERING LINE CHARGE

Determination of Edson Gathering Line Rate Base:

Estimated Assets in Service	\$116,030
Accumulated Depreciation	<u>62,338</u>
Average Net Assets in Service	53,692

Calculation for Working Capital Operating Costs:

Maintenance	\$ 4,700
Transportation	3,000
Property Taxes	2,300
General and Administration	1,500
Income Taxes $54/24,234 \times \$2,259$	<u>5,034</u>
	<u>\$16,534</u>

Cash Working Capital $25/365 \times \$16,534$	<u>1,132</u>
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Total Rate Base Edson Gathering Line	<u>\$ 54,824</u>
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Edson Gathering Line Cost of Service:

Return on Rate Base $\$54,824$ at $.1438 =$	\$ 7,884
Income Tax Expense $55/30,570 \times (\$2,660 + \$80)$	4,930
Depreciation	2,313
Operating Costs - Maintenance	4,700
- Transportation	3,000
- Property taxes	2,300
- General and Administration	<u>1,500</u>

Edson Cost of Service	<u>\$26,627</u>
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Estimated Throughput	36 500 m <sup>3</sup>
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Gathering Line Charge	$\$0.72951/\text{m}^3$
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Notes:

(1) Determination of Terminalling Assets in Service

(\$000)

Estimate Original Cost of Tankage Rate Base	9,959
Estimated Accumulated Depreciation	<u>7,827</u>

Balance as at 31 December 1982	<u>\$2,132</u>
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Analysis: Plant in Service

	Plant in Service	Additions Transfers and (Retirements)	Depreciation Expense	Retirements & Transfers	Accumulated Depreciation
Jan. 1	\$ 9,959	-	-	-	\$ 7,827
Jan. 31	9,959	-	25	-	7,852
Feb. 28	9,959	-	25	-	7,877
Mar. 31	9,959	-	25	-	7,902
Apr. 30	9,959	-	25	-	7,927
May 30	9,959	-	25	-	7,952
June 30	10,209	250	25	-	7,977
July 31	10,209	-	26	-	8,003
Aug. 31	10,209	-	26	-	8,029
Sept. 30	10,209	-	25	-	8,054
Oct. 31	10,209	-	25	-	8,079
Nov. 30	11,591	1,395 (140) (a) 127 (b)	26	127 (b) (140) (a) 10 (c)	8,102
Dec. 31	<u>11,841</u> <u>\$134,231</u>	250	<u>28</u> <u>\$306</u>	-	<u>8,130</u> <u>\$103,771</u>
Average (d)	<u>\$ 10,325</u>				<u>\$ 7,978</u>

(2) Working Capital Allowance for Terminalling Function

Maintenance	\$ 435
Insurance	13
Property Taxes	436
General and Administrative	163
Income Taxes Payable 2,347/24,234 x \$2,259	219 (e)
	<u>\$1,266</u>

Cash working capital \$1,266 x 25/365 = \$87

- (a) Retirements
- (b) Transfer of assets completely depreciated
- (c) Proceeds from disposition
- (d) 13-month average
- (e) On the same ratio that net terminalling plant in service bears to total plant in service

TRANS MOUNTAIN PIPE LINE COMPANY LTD.  
SYSTEM MAP











